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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/710,474	07/14/2004	Robert Funk	75416	2130

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EXAMINER	
VAUGHN, MEGANN E	
ART UNIT	PAPER NUMBER
2859	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/710,474	FUNK, ROBERT	
	Examiner	Art Unit	
	Megann E. Vaughn	2859	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 January 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2 and 4-7* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2 and 4-7* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *04 January 2007* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 1/4/2007 have been fully considered but they are not persuasive.

In response to Applicant's argument on page 7 of the Remarks that Funk et al fails to disclose "how much excess grain weight there was when the test cell had been overfilled to insure complete filling," does not include certain features of Applicant's invention, the limitations on which the Applicant relies i.e., that "there is no way of knowing how much excess grain weight there was when the test cell had been overfilled to insure complete filling, this variable overfilling is a factor which causes variation in the degrees of packing of the sample and thus potentially significant variations in the test results," are not stated in the claims. It is the claims that define the claimed invention, and it is the claims, not specifications that are anticipated or unpatentable. *Constant v. Advanced Micro-Devices Inc., 7 USPQ 2d 1064.*

Further, applicant argues on page 8 of the Remarks that Rosenthal discloses a significantly more complicated system than the present invention. This argument is not persuasive because although the apparatus disclosed by the applicant and Rosenthal are different, they aren't being compared, the Rosenthal reference is used in a 103 rejection to teach using a weight scale to weigh the dumped grain at the bottom of the column/container, as acknowledged by the applicant on page 8, in order to further improve the apparatus disclosed by Funk et al as described in the rejection below.

Lastly, in response to Applicant's argument on page 8 of the Remarks that the Examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in any sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the invention was made, and does not include knowledge gleaned only from the Applicant's disclosure, such a reconstruction is proper. *In re McLaughlin, 443 F.2 d 1392; 170 USPQ 209 (CCPA 1971).*

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Funk et al (US 4121151) in view of Rosenthal (US 4487278).

Regarding claim 1, Funk et al discloses in figure 3, a grain moisture tester (20) comprising means (24) for introducing a grain sample (column 1, line 7) into a test cell (40), the test cell comprising means for measuring the dielectric constant of the grain sample (column 10, lines 15-18), and means (162) for calculating the moisture content of the sample based on the measure dielectric constant, including a strike off element, (106), for removing excess grains delivered to the test cell (column 5, lines 37-39), a

bottom container (26) disposed under the test cell (40) and having such an extension, the entire bottom of the test apparatus as seen in figure 3, that grains removed from the test cell (40) by the strike off element (106) will fall into said container (26), means (column 3, lines 34-36) for unloading grains from the test cell into the container (26).

Funk et al does not disclose means for weighing the container and its possible content.

Rosenthal discloses in figure 1, an instrument for measuring the weight of grain dumped out of the instrument into a weight scale (26). Therefore it would have been obvious to add beneath the container disclosed by Funk et al a the weight scale as disclosed by Rosenthal, in order to be able to measure the grain after its been disposed from the test cell to provide a test weight as taught by Rosenthal (column 1, lines 35-39, column 2, lines 49-65) that insures an accurate weight so when measuring other properties of the grain, the weight can be kept constant or results can be compared in terms of the weight/amount of grain sample.

4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Funk et al (US 4121151) in view of Rosenthal (US 4487278) as applied to claims 1and 3 above, and further in view of Le Gigan (US 5253512).

Funk et al and Rosenthal et al discloses a grain moisture tester as stated above in paragraph 9. Funk et al further discloses in figure 3, means for introducing a grain sample into a test cell comprising a top container hopper (24). Funk also discloses means (146, 147) for determining the temperature of the grain (column 8, lines 55-57).

Funk et al and Rosenthal do not disclose that the top container comprises means for determining temperature of the grain sample.

Le Gigan discloses in figure 1, a moisture meter for granular products that has a temperature sensor (column 4, lines 26-28) in the hopper (1). Therefore, it would have been obvious to a person having ordinary skill in the art at the time that the invention was made to replace the temperature sensor disclosed by Funk et al to the top container/hopper as taught by Le Gigan, in order to determine the initial temperature of the grain before it enters the test cell since the enclosed test cell could have an abnormally high temperature inside the test cell due to continuous use of the instrument causing the reading of the temperature of the grain to be higher than it should be and therefore, inaccurate.

5. Claims 4, 5, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Funk et al (US 4121151) and Rosenthal (US 4487278) in view of Le Gigan (US 5253512), as applied to claim 2, and further in view of Tsuchiya (US 6951419).

Funk et al, Rosenthal, and Le Gigan disclose a grain measuring tester with means for determining temperature of a grain sample, as explained in paragraph 10.

Funk et al, Rosenthal, and Le Gigan do not disclose specifically that the temperature sensor comprises at least one elongate conductive element, having a resistance dependent on the temperature and being bent in a pattern so that it covers a certain area, a sensor for measuring the current flowing in the conductive element, and means for calculating the resistance of the conductive element based on the measured current and the temperature based on the calculated resistance value.

Tsuchiya discloses a temperature sensor comprising a least one elongate conductive wire (13 and column 2, lines 39-44), having a resistance dependent on the temperature (column 13, lines 1-5) and being bent in a pattern so that it covers a certain area (see figure 1, 13), a sensor for measuring the current (column 13, line 2, and figure 16, 249) flowing in the conductive element, and means for calculating the resistance of the conductive element based on the measured current and the temperature based on the calculated resistance value (column 13, lines 15-22).

Regarding claim 5, Tsuchiya discloses in figure 1, that the temperature sensor also includes a second elongate element (13), conductive wires, similar to the first and running parallel thereto and in the same plane (see figure 1, 13).

Regarding claim 7, Tsuchiya discloses that the temperature sensor includes one of the conductive wires made of copper (column 5, line 30).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time that the invention was made to use the type of temperature sensor, as taught by Tsuchiya above, as the temperature sensor in the top container/hopper disclosed by Funk et al and Le Gigan because Tsuchiya's sensor is a common type of temperature sensor which will provide the same function, i.e. temperature sensing, if used instead of the temperature sensor disclosed by Funk et al.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Funk et al (US 4121151), Rosenthal (US 4487278), Le Gigan (US 5253512), and Tsuchiya (US

6951419) as applied to claims 4, 5, and 7 above, and further in view of Payne et al (US 5041809).

Funk et al, Rosenthal, Le Gigan, and Tsuchiya disclose a grain moister tester with a temperature sensor comprising at least one elongate conductive element as mentioned in paragraph 11 above.

Funk et al, Rosenthal, Le Gigan, and Tsuchiya do not disclose specifically that the elongate conductive element runs in a meandering path.

Payne el al discloses in figure 2A, an elongate conductive element that runs in a meandering/serpentine path (14). Therefore, it would have been obvious to a person having ordinary skill in the art at the time that the invention was made to run Tsuchiya's wires in a meandering pattern as taught by Payne et al to provide a long conductive element to completely cover a limited surface area (column 4, lines 10-12).

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Megann E. Vaughn whose telephone number is 571-272-8927. The examiner can normally be reached on 8 am- 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on 571-272-2245. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MEV
Patent Examiner Art Unit 2859
5/1/2007

GAIL VERBITSKY
PRIMARY EXAMINER